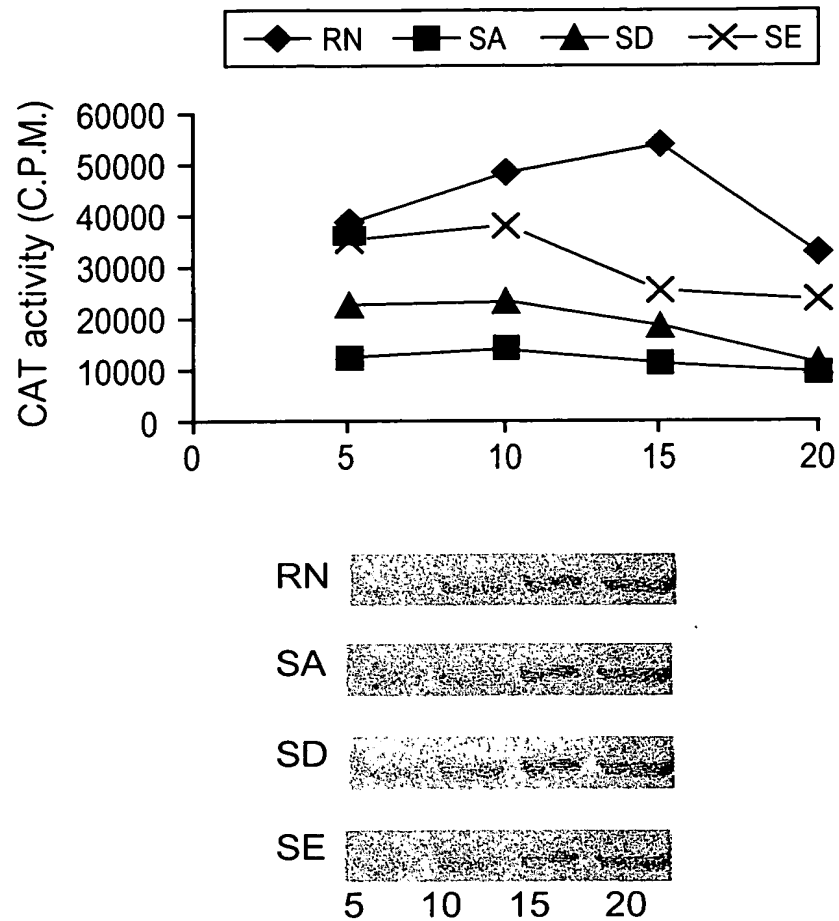


Fig. 1



Concentrations of N-expressing plasmids (μg)

Fig. 2

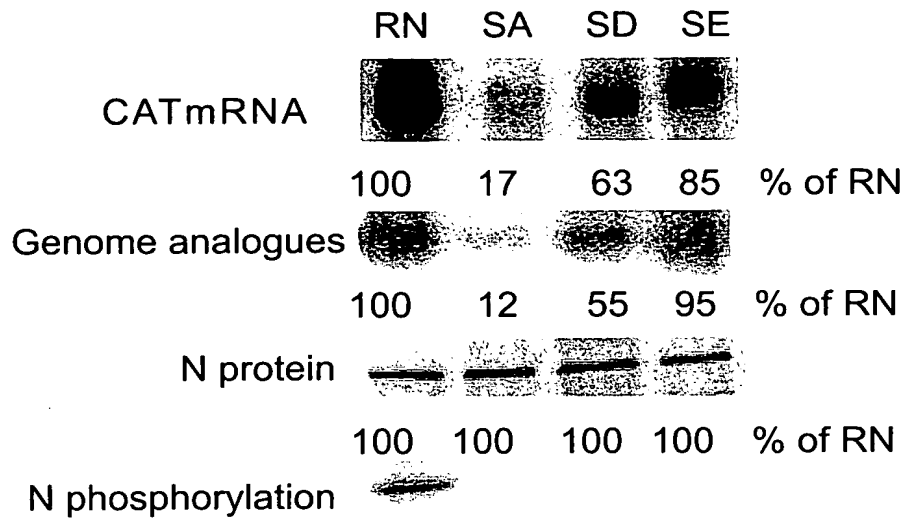


Fig. 3

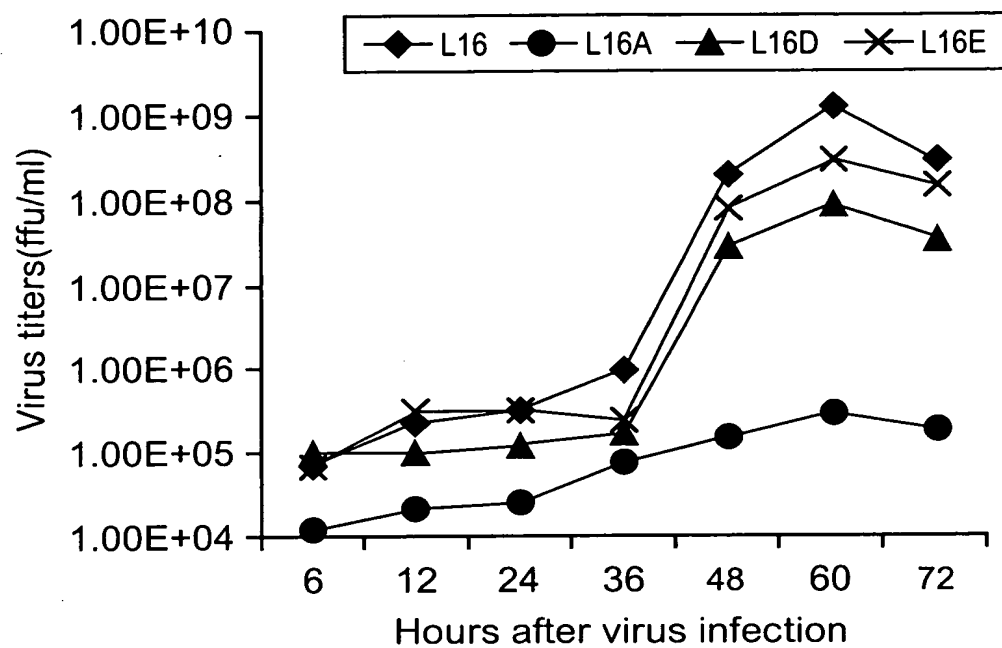
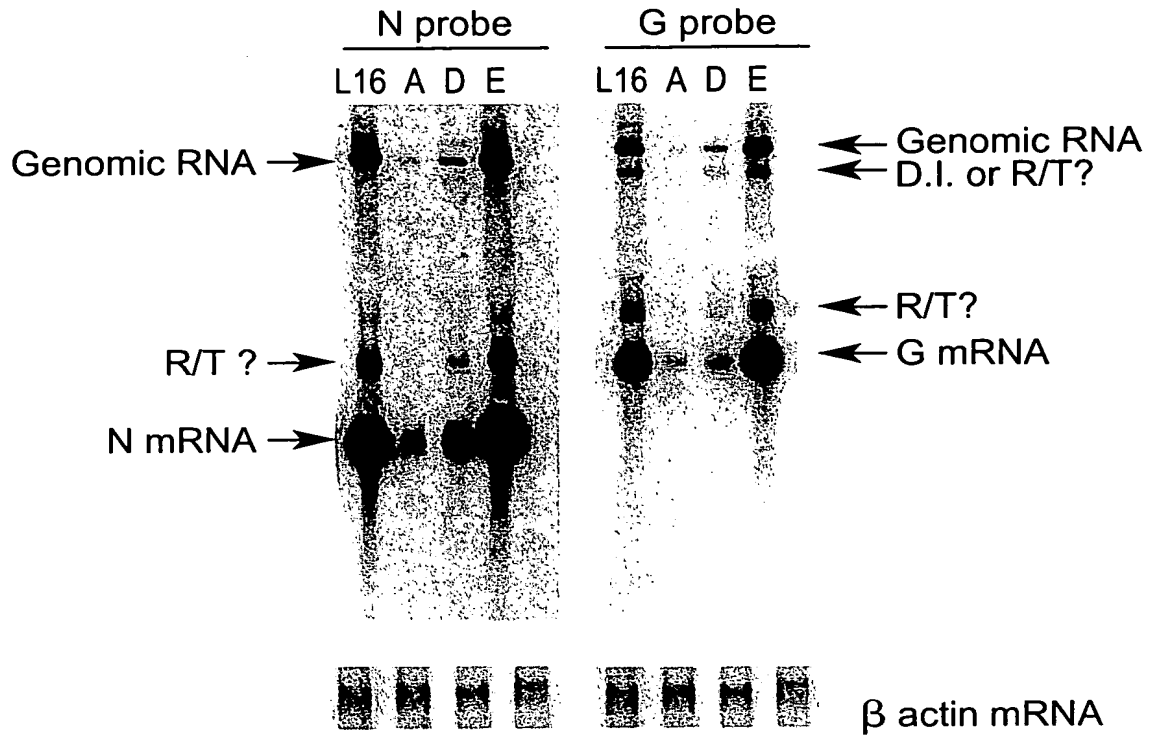


Fig. 4



		L16	A	D	E
N	Genomic RNA	100%	10.4%	45%	100%
N	mRNA	100%	28%	65%	100%
G	Genomic RNA	100%	12.2%	41%	100%
G	mRNA	100%	21%	60%	100%

Fig. 5

Fig. 6A

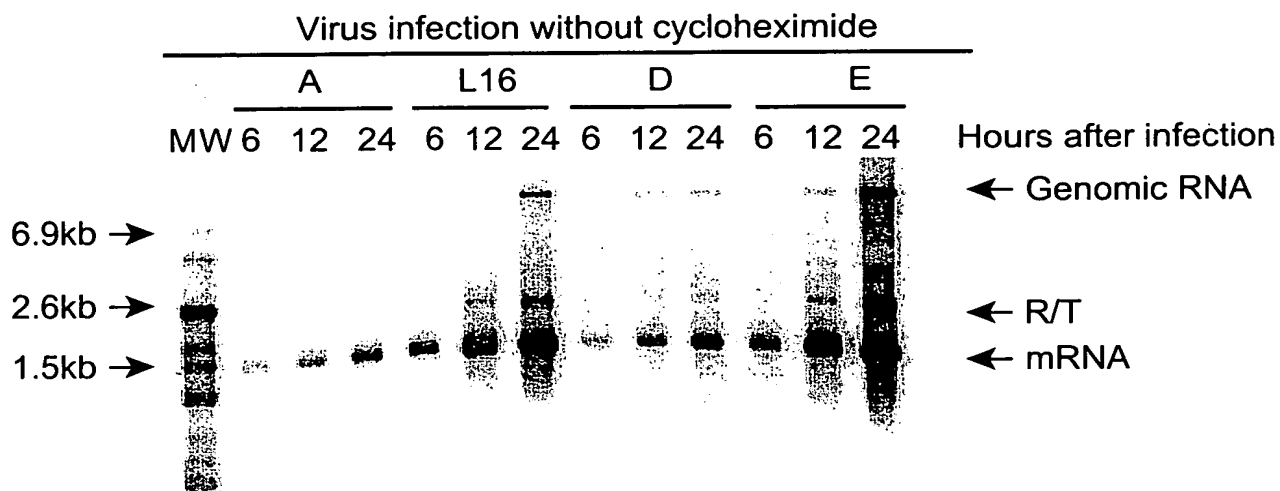
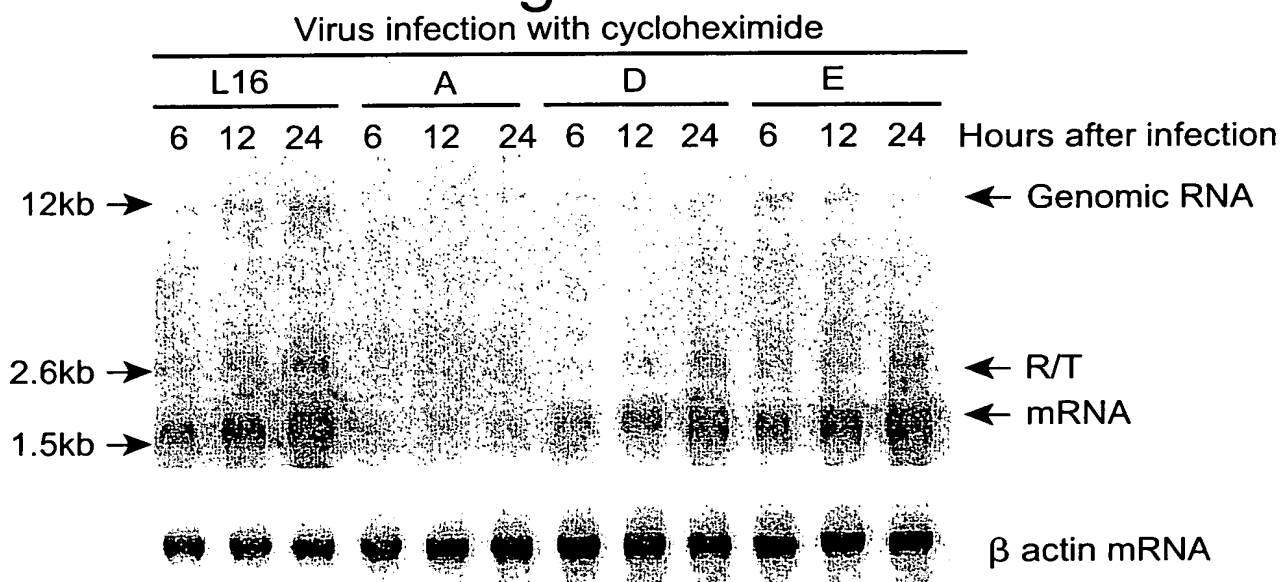


Fig. 6B



	L16	A	D	E
mRNA (6h)	100%	10%	53%	91%
mRNA (12h)	100%	12%	61%	95%
mRNA (24h)	100%	8%	65%	100%

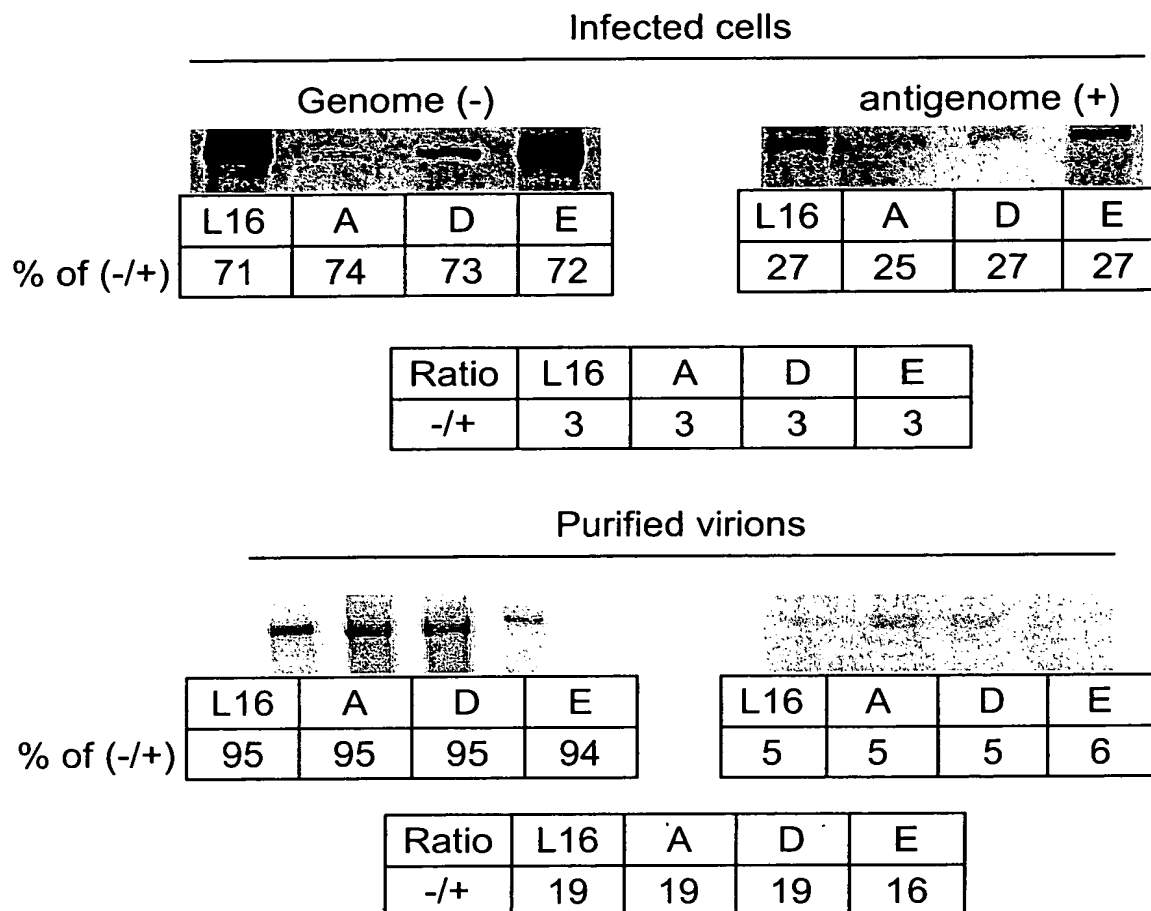
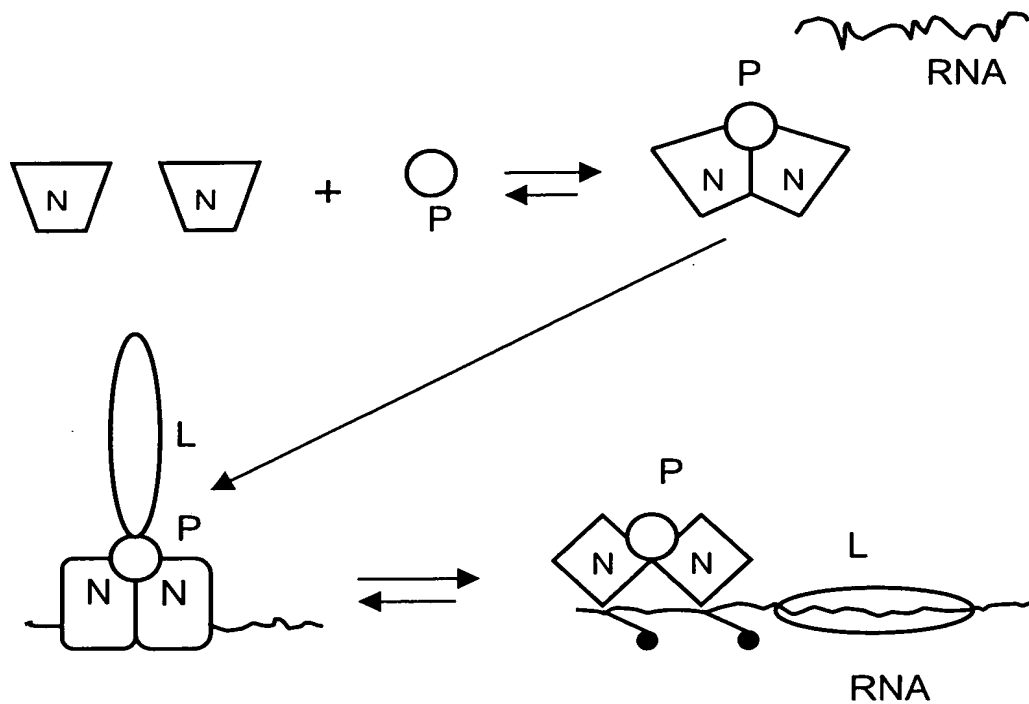


Fig. 7



(● phosphate group)

Model of N Phosphorylation and its Effects on
Viral Transcription and Replication

Fig. 8

Fig. 9A-1

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421 aggggaattgg gctctgacag gaggcattgga actgacaaga gacccactg tccctgagca
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```

Fig. 9A-2

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```

Fig. 9A-3

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Fig. 9A-4

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Fig. 9A-5

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```

Fig. 9A-6

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```

Fig. 9A-7

```
10801 cgatgcagaa gttactgaca ttgcatctat caaccggatc accctgttaa tgtccgattt
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10921 aaatccaaac tacaaggcta ttcaacacct gtcaagagcg ttcccctcgg tcacagggtt
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```

Fig. 9B-1

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241 gtcaggcatg agcgccgcca aacttaatcc tgacgatgta tgttcctatt tggcagcggc
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361 acgaaaagga gataagatca cccaggttc tctggtggag ataaaacgta ctgatgtaga
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481 tgcgtcctta gtcggtcttc tcttgagtct gtatagggtg agcaaaatat ccgggcaaaa
541 cactggtaac tataagacaa acattgcaga caggatagag cagatttttg agacagcccc
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661 gagtactata ccaaacttca gatttttggc cggaacctat gacatgtttt tctcccggat
721 tgagcatcta tattcagcaa tcagagtggg cacagtgtgc actgcttatg aagactgttc
781 aggactggta tcatttactg ggttcataaa acaaatcaat ctcaccgcta gagaggcaat
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1561 cgatcttgag atggctgaag aaactgttga tctgatcaat agaaatatcg aagacaatca
1621 ggctcatctc caaggggaac ccatagaggt ggacaatctc cctgaggata tggggcgact
1681 tcacctggat gatggaaaat cgcccaacca tggtgagata gccaaaggtg gagaaaggcaa
1741 gtatcgagag gactttcaga tggatgaagg agaggatcct agcttcctgt tccagtcata
1801 cctggaaaaa gttggagtcc aaatagtcag acaaatgagg tcaggagaga gatttctcaa
```


Fig. 9B-2

1861	gatatggtca	cagaccgtag	aagagattat	atcctatgtc	gcggtcaact	ttcccaaccc
1921	tccaggaaag	tcttcagagg	ataaatcaac	ccagactact	ggccgagagc	tcaagaagga
1981	gacaacaccc	actccttctc	agagagaaag	ccaatcatcg	aaagccagga	tggcggctca
2041	aattgcttct	ggccctccag	cccttgaatg	gtcggctacc	aatgaagagg	atgatctatc
2101	agtggaggct	gagatcgctc	accagattgc	agaaagtttc	tccaaaaaat	ataagtittc
2161	ctctcgatcc	tcagggatac	tcttgataaa	ttttgagcaa	ttgaaaatga	accttgatga
2221	tatagttaaa	gaggcaaaaa	atgtaccagg	tgtgaccctg	ttagcccatg	acgggtccaa
2281	actcccccta	agatgtgtac	tgggatgggt	cgctttggcc	aactctaaga	aattccagtt
2341	gtagtcgaa	tccgacaagc	tgagtaaaat	catgcaagat	gacttgaatc	gctatacatc
2401	ttgctaaccg	aacctctccc	ctcagtcctt	ctagacaata	aaatccgaga	tgtcccaaag
2461	tcaacatgaa	aaaaacaggc	aacaccactg	ataaaatgaa	cctcctacgt	aagatagtga
2521	aaaaccgcag	ggacgaggac	actcaaaaat	cctctcccg	gtcagcccct	ctggatgacg
2581	atgacttggt	gcttccaccc	cctgaatacg	tcccgctgaa	agaacttaca	ggcaagaaga
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2701	tcaggatcct	gcggcacatt	ctgaaatcat	tcgacgagat	atattctggg	aatcatagga
2761	tgatcgggtt	agtcaaagt	gttattggac	tggctttgtc	aggatctcca	gtccctgagg
2821	gcctgaactg	ggtatacaaa	ttgaggagaa	cctttatctt	ccagtgggct	gattccaggg
2881	gccctcttga	aggggaggag	ttggaatact	ctcaggagat	cacttgggat	gatgatactg
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3121	aaatttatca	cttgtttacc	tctggaggag	agaacatatg	ggctcaactc	caacccttgg
3181	gagcaatata	acaaaaaaca	tgttatgggt	ccattaaacc	gctgcatttc	atcaaagtca
3241	agttgattac	ctttacattt	tgatcctctt	ggatgtgaaa	aaaactatta	acatccctca
3301	aaagactcaa	ggaaagatgg	ttcctcaggc	tctcctgttt	gtacccttct	tggtttttcc
3361	attgtgtttt	gggaaattcc	ctatttacac	gataccagac	aagcttgggt	cctggagtcc
3421	gattgacata	catcacctca	gctgcccata	caatttggtg	gtggaggacg	aaggatgcac
3481	caacctgtca	gggttctcct	acatggaact	taaagtggga	tacatcttag	ccataaaaagt
3541	gaacgggttc	acttgcacag	gcgttgtgac	ggaggctgaa	acctacacta	acttcgttgg
3601	ttatgtcaca	accacgttca	aaagaaagca	tttccgcccc	acaccagatg	catgtagagc

Fig. 9B-3

```
3661 cgcgtacaac tggaagatgg ccggtgaccc cagatatgaa gagtctctac acaatccgta
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3781 tccaagtgtg gcagatttgg acccatatga cagatccctt cactcgaggg tcttccttag
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3901 catttgatg cccgagaatc cgagactagg gatgtcttgt gacattttta ccaatagtag
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4561 gcacccctg gcagaccgt ctaccgtttt caaggacggt gacgaggctg aggattttgt
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Fig. 9B-4

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7141 cttgccactt tttgacgcgc tgactatgac agacaacctg aacaaggtgt ttaaaaagct
7201 gatcgacagg gtcaccgggc aagggtcttt ggactattca agggtcacat atgcatttca

Fig. 9B-5

```
7261 cctggactat gaaaagtgga acaaccatca aagattagag tcaacagagg atgtattttc
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Fig. 9B-6

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9241 agacgggaag aactacgatt tcatgttcca gccattgatg ctttatgcac agacatggac
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9841 tagaggagag atattttcta tccctcagaa aatccccgcc gcttatccaa ccactatgaa
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Fig. 9B-7

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```

Fig. 9C-1

```

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1381 attcgccgag tttctaaaca agacatattc gagtgactca taagaagttg aataacaaaa
1441 tgccggaaat ctacggattg tgtatatcca tcatgaaaaa aactaacacc cctcctttcg
1501 aaccatccca aacatgagca agatctttgt caatcctagt gctattagag ccggtctggc
1561 cgatcttgag atggctgaag aaactgttga tctgatcaat agaaatatcg aagacaatca
1621 ggctcatctc caaggggaac ccatagaggt ggacaatctc cctgaggata tggggcgact
1681 tcacctggat gatggaaaat cgcccaacca tgggtgagata gccaaagggtg gagaaggcaa
1741 gtatcgagag gactttcaga tggatgaagg agaggatcct agcttcctgt tccagtcata
1801 cctggaaaat gttggagtcc aaatagtcag acaaatgagg tcaggagaga gatttctcaa
  
```

Fig. 9C-2

1861	gatatgggtca	cagaccgtag	aagagattat	atcctatgtc	gcggtcaact	ttcccaaccc
1921	tccaggaaag	tcttcagagg	ataaatcaac	ccagactact	ggccgagagc	tcaagaagga
1981	gacaacaccc	actccttctc	agagagaaag	ccaatcatcg	aaagccagga	tggcggctca
2041	aattgcttct	ggccctccag	cccttgaatg	gtcggctacc	aatgaagagg	atgatctatc
2101	agtggaggct	gagatcgctc	accagattgc	agaaagtttc	tccaaaaaat	ataagtttcc
2161	ctctcgatcc	tcagggatac	tcttgataaa	ttttgagcaa	ttgaaaatga	accttgatga
2221	tatagttaaa	gaggcaaaaa	atgtaccagg	tgtgaccctg	ttagcccatg	acgggtccaa
2281	actcccccta	agatgtgtac	tgggatgggt	cgctttggcc	aactctaaga	aattccagtt
2341	gttagtcgaa	tccgacaagc	tgagtaaaat	catgcaagat	gacttgaatc	gctatacatc
2401	ttgctaaccg	aacctctccc	ctcagtcctt	ctagacaata	aaatccgaga	tgtcccaaag
2461	tcaacatgaa	aaaaacaggc	aacaccactg	ataaaatgaa	cctcctacgt	aagatagtga
2521	aaaaccgcag	ggacgaggac	actcaaaaat	cctctcccgc	gtcagccctt	ctggatgacg
2581	atgacttggtg	gcttccaccc	cctgaatacg	tcccgtgaa	agaacttaca	ggcaagaaga
2641	acatgaggaa	cttttgatc	aacggaaggg	ttaaagtgtg	tagcccgaa	ggttactcgt
2701	tcaggatcct	gcggcacatt	ctgaaatcat	tcgacgagat	atattctggg	aatcatagga
2761	tgatcgggtt	agtcaaagtg	gttattggac	tggctttgtc	aggatctcca	gtccctgagg
2821	gcctgaactg	ggtatacaaa	ttgaggagaa	cctttatctt	ccagtgggct	gattccaggg
2881	gccctcttga	aggggaggag	ttggaatact	ctcaggagat	cacttgggat	gatgatactg
2941	agttcgtcgg	attgcaaata	agagtgattg	caaaacagtg	tcatatccag	ggcagagtct
3001	ggtgtatcaa	catgaaccgc	agagcatgtc	aactatgggtc	tgacatgtct	cttcagacac
3061	aaaggtccga	agaggacaaa	gattcctctc	tgcttctaga	ataatcagat	tatatcccg
3121	aaatttatca	cttgtttacc	tctggaggag	agaacatatg	ggctcaactc	caacccttgg
3181	gagcaatata	acaaaaaaca	tgttatgggtg	ccattaaacc	gctgcatttc	atcaaagtca
3241	agttgattac	ctttacattt	tgatcctctt	ggatgtgaaa	aaaactatta	acatccctca
3301	aaagactcaa	ggaaagatgg	ttcctcaggc	tctcctgttt	gtaccccttc	tggtttttcc
3361	attgtgtttt	gggaaattcc	ctatttacac	gataccagac	aagcttgggtc	cctggagtcc
3421	gattgacata	catcacctca	gctgccccaa	caatttggta	gtggaggacg	aaggatgcac
3481	caacctgtca	gggttctcct	acatggaact	taaagttgga	tacatcttag	ccataaaagt
3541	gaacgggttc	acttgacacg	gcgttgtgac	ggaggctgaa	acctacacta	acttcgttgg
3601	ttatgtcaca	accacgttca	aaagaaagca	tttccgcccc	acaccagatg	catgtagagc

Fig. 9C-3

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3661 cgcgtacaac tggaagatgg ccggtgaccc cagatatgaa gagtctctac acaatccgta
3721 ccctgactac cgctggcttc gaactgtaaa aaccaccaag gagtctctcg ttatcatatc
3781 tccaagtgtg gcagatttgg acccatatga cagatccctt cactcgagggg tcttccctag
3841 cgggaagtgc tcaggagtag cgggtgtcttc tacctactgc tccactaacc acgattacac
3901 catttggatg cccgagaatc cgagactagg gatgtcttgt gacattttta ccaatagtag
3961 agggaagaga gcatccaaag ggagtgagac ttgcggcttt gtagatgaaa gaggcctata
4021 taagtcttta aaaggagcat gcaaactcaa gttatgtgga gttctaggac ttagacttat
4081 ggatggaaca tgggtctcga tgcaaacatc aaatgaaacc aaatgggtgcc ctcccgataa
4141 gttggtgaac ctgcacgact ttgcctcaga cgaaattgag caccttgttg tagaggagtt
4201 ggtcaggaag agagaggagt gtctggatgc actagagtcc atcatgacaa ccaagtcagt
4261 gagtctcaga cgtctcagtc atttaagaaa acttgtccct gggtttggaa aagcatatac
4321 catattcaac aagaccttga tggaagccga tgctcactac aagtcagtca gaacttggaa
4381 tgagatcctc ccttcaaaag ggtgtttaag agttgggggg aggtgtcatc ctcatgtgaa
4441 cggggtgttt ttcaatggta taatattagg acctgacggc aatgtcttaa tcccagagat
4501 gcaatcatcc ctctccagc aacatatgga gttgttggaa tcctcggtta tcccccttgt
4561 gcacccctg gcagaccctg ctaccgtttt caaggacggg gacgaggctg aggattttgt
4621 tgaagttcac ctcccgatg tgcacaatca ggtctcagga gttgacttgg gtctcccgaa
4681 ctgggggaag tatgtattac tgagtgcagg ggccctgact gccttgatgt tgataatttt
4741 cctgatgaca tgttgtagaa gagtcaatcg atcagaacct acgcaacaca atctcagagg
4801 gacagggagg gaggtgtcag tcaactccca aagcgggaag atcatatctt catgggaatc
4861 acacaagagt gggggtgaga ccagactgta aggactggcc gtcctttcaa cgatccaagt
4921 cctgaagatc acctcccctt ggggggttct ttttgaaaaa cctgggttca atagtcctcc
4981 ttgaactcca tgcaactggg tagattcaag agtcatgaga ttttcattaa tcctctcagt
5041 tgatcaagca agatcatgtc gattctcata ataggggaga tcttctagca gtttcagtga
5101 ctaacggtac tttcattctc caggaactga caccaacagt tgtagacaaa ccacggggtg
5161 tctcgggtga ctctgtgctt gggcacagac aaagggtcatg gtgtgttcca tgatagcgga
5221 ctcaggatga gttaattgag agaggcagtc ttcctcccgt gaaggacata agcagtagct
5281 cacaatcatc tcgcgtctca gcaaagtgtg cataattata aagtgtctggg tcattctaagc
5341 ttttcagtcg agaaaaaac attagatcag aagaacaact ggcaacactt ctcaacctga
5401 gacttacttc aagatgctcg atcctggaga ggtctatgat gaccctattg acccaatcga
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Fig. 9C-4

5461	g t t a g a g g c t	g a a c c c a g a g	g a a c c c c c a t	t g t c c c c a a c	a t c t t g a g g a	a c t c t g a c t a
5521	c a a t c t c a a c	t c t c t t t g a	t a g a a g a t c c	t g c t a g a c t a	a t g t t a g a a t	g g t t a a a a a c
5581	a g g g a a t a g a	c c t t a t c g g a	t g a c t c t a a c	a g a c a a t t g c	t c c a g g t c t t	t c a g a g t t t t
5641	g a a a g a t t a t	t t c a a g a a g g	t a g a t t t g g g	t t c t c t c a a g	g t g g g c g g a a	t g g c t g c a c a
5701	g t c a a t g a t t	t c t c t c t g g t	t a t a t g g t g c	c c a c t c t g a a	t c c a a c a g g a	g c c g g a g a t g
5761	t a t a a c a g a c	t t g g c c c a t t	t c t a t t c c a a	g t c g t c c c c c	a t a g a g a a g c	t g t t g a a t c t
5821	c a c g c t a g g a	a a t a g a g g g c	t g a g a a t c c c	c c c a g a g g g a	g t g t t a a g t t	g c c t t g a g a g
5881	g g t t g a t t a t	g a t a a t g c a t	t t g g a a g g t a	t c t t g c c a a c	a c g t a t t c c t	c t t a c t t g t t
5941	c t t c c a t g t a	a t c a c c t t a t	a c a t g a a c g c	c c t a g a c t g g	g a t g a a g a a a	a g a c c a t c c t
6001	a g c a t t a t g g	a a a g a t t t a a	c c t c a g t g g a	c a t c g g g a a g	g a c t t g g t a a	a g t t c a a a g a
6061	c c a a a t a t g g	g g a c t g c t g a	t c g t g a c a a a	g g a c t t t g t t	t a c t c c c a a a	g t t c c a a t t g
6121	t c t t t t t g a c	a g a a a c t a c a	c a c t t a t g c t	a a a a g a t c t t	t t c t t g t c t c	g c t t c a a c t c
6181	c t t a a t g g t c	t t g c t c t c t c	c c c c a g a g c c	c c g a t a c t c a	g a t g a c t t g a	t a t c t c a a c t
6241	a t g c c a g c t g	t a c a t t g c t g	g g g a t c a a g t	c t t g t c t a t g	t g t g g a a a c t	c c g g c t a t g a
6301	a g t c a t c a a a	a t a t t g g a g c	c a t a t g t c g t	g a a t a g t t t a	g t c c a g a g a g	c a g a a a a g t t
6361	t a g g c c t c t c	a t t c a t t c c t	t g g g a g a c t t	t c c t g t a t t t	a t a a a a g a c a	a g g t a a g t c a
6421	a c t t g a a g a g	a c g t t c g g t c	c c t g t g c a a g	a a g g t t c t t t	a g g g c t c t g g	a t c a a t t c g a
6481	c a a c a t a c a t	g a c t t g g t t t	t t g t g t t t g g	c t g t t a c a g g	c a t t g g g g g c	a c c c a t a t a t
6541	a g a t t a t c g a	a a g g g t c t g t	c a a a a c t a t a	t g a t c a g g t t	c a c c t t a a a a	a a a t g a t a g a
6601	t a a g t c c t a c	c a g g a g t g c t	t a g c a a g c g a	c c t a g c c a g g	a g g a t c c t t a	g a t g g g g t t t
6661	t g a t a a g t a c	t c c a a g t g g t	a t c t g g a t t c	a a g a t t c c t a	g c c c g a g a c c	a c c c c t t g a c
6721	t c c t t a t a t c	a a a a c c c a a a	c a t g g c c a c c	c a a a c a t a t t	g t a g a c t t g g	t g g g g g a t a c
6781	a t g g c a c a a g	c t c c c g a t c a	c g c a g a t c t t	t g a g a t t c c t	g a a t c a a t g g	a t c c g t c a g a
6841	a a t a t t g g a t	g a c a a a t c a c	a t t c t t t c a c	c a g a a c g a g a	c t a g c t t c t t	g g c t g t c a g a
6901	a a a c c g a g g g	g g g c c t g t t c	c t a g c g a a a a	a g t t a t t a t c	a c g g c c c t g t	c t a a g c c g c c
6961	t g t c a a t c c c	c g a g a g t t t c	t g a g g t c t a t	a g a c c t c g g a	g g a t t g c c a g	a t g a a g a c t t
7021	g a t a a t t g g c	c t c a a g c c a a	a g g a a c g g g a	a t t g a a g a t t	g a a g g t c g a t	t c t t t g c t c t
7081	a a t g t c a t g g	a a t c t a a g a t	t g t a t t t t g t	c a t c a c t g a a	a a a c t c t t g g	c c a a c t a c a t
7141	c t t g c c a c t t	t t t g a c g c g c	t g a c t a t g a c	a g a c a a c c t g	a a c a a g g t g t	t t a a a a a g c t
7201	g a t c g a c a g g	g t c a c c g g g c	a a g g g c t t t t	g g a c t a t t c a	a g g g t c a c a t	a t g c a t t t c a

Fig. 9C-5

7261	cctggactat	gaaaagtgga	acaaccatca	aagattagag	tcaacagagg	atgtattttc
7321	tgctcctagat	caagtgtttg	gattgaagag	agtgttttct	agaacacacg	agttttttca
7381	aaaggcctgg	atctattatt	cagacagatc	agacctcatc	gggttacggg	aggatcaaat
7441	atactgctta	gatgcgtcca	acggcccaac	ctgttggaat	ggccaggatg	gcgggctaga
7501	aggcttacgg	cagaagggt	ggagtctagt	cagcttattg	atgatagata	gagaatctca
7561	aatcaggaac	acaagaacca	aaatactagc	tcaaggagac	aaccaggttt	tatgtccgac
7621	atacatgttg	tcgccagggc	tatctcaaga	ggggctcctc	tatgaattgg	agagaatatc
7681	aaggaatgca	ctttcgatat	acagagccgt	cgaggaaggg	gcatctaagc	tagggctgat
7741	catcaagaaa	gaagagacca	tgtgtagtta	tgacttcctc	atctatggaa	aaacccttt
7801	gtttagaggt	aacatattgg	tgcctgagtc	caaaagatgg	gccagagtct	cttgcgtctc
7861	taatgaccaa	atagtcaacc	tcgccaatat	aatgtcgaca	gtgtccacca	atgcgctaac
7921	agtggcacia	cactctcaat	ctttgatcaa	accgatgagg	gattttctgc	tcatgtcagt
7981	acaggcagtc	tttactacc	tgctatttag	cccaatctta	aagggaagag	tttacaagat
8041	tctgagcgct	gaaggggaga	gctttctcct	agccatgtca	aggataatct	atctagatcc
8101	ttctttggga	gggatatctg	gaatgtccct	cggaagattc	catatacgac	agttctcaga
8161	ccctgtctct	gaaggggttat	ccttctggag	agagatctgg	ttaagctccc	aagagtcctg
8221	gattcacgcg	ttgtgtcaag	aggctggaaa	cccagatctt	ggagagagaa	cactcgagag
8281	cttactcgc	cttctagaag	atccgaccac	cttaaataatc	agaggagggg	ccagtcctac
8341	cattctactc	aaggatgcaa	tcagaaaggc	tttatatgac	gaggtggaca	aggtggaaaa
8401	ttcagagttt	cgagaggcaa	tcctgttgct	caagacccat	agagataatt	ttatactctt
8461	cttaatatct	gttgagcctc	tgtttcctcg	atttctcagt	gagctattca	gttcgtcttt
8521	tttggaatc	cccagatcaa	tcattggatt	gatacaaaac	tcccgaacga	taagaaggca
8581	gtttagaaag	agtctctcaa	aaactttaga	agaatccttc	tacaactcag	agatccacgg
8641	gattagtcgg	atgaccaga	cacctcagag	ggttgggggg	gtgtggcctt	gctcttcaga
8701	gagggcagat	ctacttaggg	agatctcttg	gggaagaaaa	gtggtaggca	cgacagttcc
8761	tcacccttct	gagatgttgg	gattacttcc	caagtcctct	atttcttgca	cttgtggagc
8821	aacaggagga	ggcaatccta	gagtttctgt	atcagtactc	ccgtcctttg	atcagtcatt
8881	tttttcacga	ggccccctaa	agggatactt	gggctcgtcc	acctctatgt	cgaccagct
8941	attccatgca	tgggaaaaag	tcactaatgt	tcatgtggtg	aagagagctc	tatcgtaaaa
9001	agaatctata	aactggttca	ttactagaga	ttccaacttg	gctcaagctc	taattaggaa

Fig. 9C-6

9061	cattatgtct	ctgacaggcc	ctgatttccc	tctagaggag	gcccctgtct	tcaaaaggac
9121	ggggtcagcc	ttgcataggt	tcaagtctgc	cagatacagc	gaaggagggt	attcttctgt
9181	ctgcccgaac	ctcctctctc	atatttctgt	tagtacagac	accatgtctg	atttgaccca
9241	agacgggaag	aactacgatt	tcatgttcca	gccattgatg	ctttatgcac	agacatggac
9301	atcagagctg	gtacagagag	acacaaggct	aagagactct	acgtttcatt	ggcacctccg
9361	atgcaacagg	tgtgtgagac	ccattgacga	cgtgaccctg	gagacctctc	agatcttcga
9421	gtttccggat	gtgtcgaaaa	gaatatccag	aatggtttct	ggggctgtgc	ctcacttcca
9481	gaggcttccc	gatatccgtc	tgagaccagg	agattttgaa	tctctaagcg	gtagagaaaa
9541	gtctcaccat	atcggatcag	ctcaggggct	cttatactca	atcttagtgg	caattcacga
9601	ctcaggatac	aatgatggaa	ccatcttccc	tgtcaacata	tacggcaagg	tttcccctag
9661	agactatttg	agagggctcg	caaggggagt	attgatagga	tcctcgattt	gcttcttgac
9721	aagaatgaca	aatatcaata	ttaatagacc	tcttgaattg	gtctcagggg	taatctcata
9781	tattctctctg	aggctagata	accatccctc	cttgtaacata	atgctcagag	aaccgtctct
9841	tagaggagag	atatttttcta	tccctcagaa	aatccccgcc	gcttatccaa	ccactatgaa
9901	agaaggcaac	agatcaatct	tgtgttatct	ccaacatgtg	ctacgctatg	agcgagagat
9961	aatcacggcg	tctccagaga	atgactggct	atggatcttt	tcagacttta	gaagtgccaa
10021	aatgacgtac	ctatccctca	ttacttacca	gtctcatctt	ctactccaga	gggttgagag
10081	aaacctatct	aagagtatga	gagataacct	gcgacaattg	agttctttga	tgaggcaggt
10141	gctgggcggg	cacggagaag	ataccttaga	gtcagacgac	aacattcaac	gactgctaaa
10201	agactcttta	cgaaggacaa	gatgggtgga	tcaagagggtg	cgccatgcag	ctagaaccat
10261	gactggagat	tacagcccca	acaagaagggt	gtcccgttaag	gtaggatgtt	cagaatgggt
10321	ctgctctgct	caacagggtg	cagtctctac	ctcagcaaac	ccggcccctg	tctcggagct
10381	tgacataagg	gccctctcta	agagggttcca	gaaccctttg	atctcgggct	tgagagtgggt
10441	tcagtgggca	accggtgctc	attataagct	taagcctatt	ctagatgatc	tcaatgtttt
10501	cccatctctc	tgccttgtag	ttggggacgg	gtcagggggg	atatcaaggg	cagtcctcaa
10561	catgtttcca	gatgccaaagc	ttgtgttcaa	cagtctttta	gaggtgaatg	acctgatggc
10621	ttccggaaca	catccactgc	ctccttcagc	aatcatgagg	ggaggaaatg	atatcgtctc
10681	cagagtgata	gatcttgact	caatctggga	aaaaccgtcc	gacttgagaa	acttggaac
10741	ctggaaatac	ttccagtcag	tccaaaagca	ggtcaacatg	tcctatgacc	tcattatttg
10801	cgatgcagaa	gttactgaca	ttgcatctat	caaccggatc	accctgttaa	tgtccgattt

Fig. 9C-7

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10861 tgcattgtct atagatggac cactctatTT ggtcttcaaa acttatggga ctatgctagt
10921 aaatccaaac tacaaggcta ttcaacacct gtcaagagcg ttcccctcgg tcacagggtt
10981 tatcacccaa gtaacttcgt ctttttcatc tgagctctac ctccgattct ccaaacgagg
11041 gaagtttttc agagatgctg agtacttgac ctcttccacc cttcgagaaa tgagccttgt
11101 gttattcaat tgtagcagcc ccaagagtga gatgcagaga gctcgttcct tgaactatca
11161 ggatccttgtg agaggatttc ctgaagaaat catatcaaat cttacaatg agatgatcat
11221 aactctgatt gacagtgatg tagaatcttt tctagtccac aagatgggtg atgatcttga
11281 gttacagagg ggaactctgt ctaaagtggc tatcattata gccatcatga tagttttctc
11341 caacagagtc ttcaacgttt ccaaaccctt aactgacccc tcgttctatc caccgtctga
11401 tcccaaaatc ctgaggcact tcaacatatg ttgcagtact atgatgtatc tatctactgc
11461 tttaggtgac gtccctagct tcgcaagact tcacgacctg tataacagac ctataactta
11521 ttacttcaga aagcaagtca ttcgagggaa cgtttatcta tcttggagtt ggtccaacga
11581 cacctcagtg ttcaaaaggg tagcctgtaa ttctagcctg agtctgtcat ctactggat
11641 caggttgatt tacaagatag tgaagactac cagactcgtt ggcagcatca aggatctatc
11701 cagagaagtg gaaagacacc ttcataggta caacaggtgg atcaccctag aggatatcag
11761 atctagatca tccctactag actacagttg cctgtgaacc ggatactcct ggaagcctgc
11821 ccatgctaag actcttgtgt gatgtatctt gaaaaaaca agatcctaaa tctgaacctt
11881 tggttgtttg attgtttttc tcatttttgt tgtttatttg ttaagcgt
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Fig. 9D-1

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1  acgcttaaca accagatcaa agaaaaaaca gacattgtca attgcaaagc aaaaatgtaa
61  cacccttaca atggatgccg acaagattgt attcaaagtc aataatcagg tggctctctt
121 gaagcctgag attatcgtgg atcaatatga gtacaagtac cctgccatca aagatttgaa
181 aaagccctgt ataaccctag gaaaggctcc cgatttaaataaagcataca agtcagtttt
241 gtcaggcatg agcgccgcca aacttaatcc tgacgatgta tgttcctatt tggcagcggc
301 aatgcagttt tttgagggga catgtccgga agactggacc agctatggaa ttgtgattgc
361 acgaaaagga gataagatca ccccagggtt tctgggtggag ataaaacgta ctgatgtaga
421 aggggaattgg gctctgacag gaggcattgga actgacaaga gacccctactg tccctgagca
481 tgcgtcctta gtcggtcttc tcttgagtct gtatagggtg agcaaaatat cggggcaaaa
541 cactggtaac tataagacaa acattgcaga caggatagag cagatttttg agacagcccc
601 ttttgtaaaa atcgtggaac accatactct aatgacaact cacaaaatgt gtgctaattg
661 gagtactata ccaaacttca gatttttggc cggaacctat gacatgtttt tctcccggat
721 tgagcatcta tattcagcaa tcagagtggg cacagttgtc actgcttatg aagactgttc
781 aggactggta tcatttactg ggttcataaaa acaaatcaat ctcaccgcta gagaggcaat
841 actatatttc ttccacaaga actttgagga agagataaga agaattgttg agccagggca
901 ggagacagct gttcctcact cttatttcat ccacttccgt tcactaggct tgagtgggaa
961 atctccttat tcatcaaag ctgttggtca cgtgttcaat ctcattcact ttgtaggatg
1021 ctatatgggt caagtcagat ccctaaatgc aacggttatt gctgcatgtg ctcctcatga
1081 aatgtctgtt ctagggggct atctgggaga ggaattcttc gggaaaggga catttgaaag
1141 aagattcttc agagatgaga aagaacttca agaatacgag gcggctgaac tgacaaagac
1201 tgacgtagca ctggcagatg atggaactgt caacCAAgac gacgaggact acttttcagg
1261 tgaaaccaga agtccggagg ctgtttatac tcgaatcatg atgaatggag gtcgactaaa
1321 gagatctcac atacggagat atgtctcagt cagttccaat catcaagccc gtccaaactc
1381 attcgccgag tttctaaaca agacatattc gactgactca taagaagttg aataacaaaa
1441 tgccggaaat ctacggattg tgtatatcca tcatgaaaaa aactaacacc cctcctttcg
1501 aaccatccca aacatgagca agatctttgt caatcctagt gctattagag ccggtctggc
1561 cgatcttgag atggctgaag aaactgttga tctgatcaat agaaatatcg aagacaatca
1621 ggctcatctc caaggggaac ccatagaggt ggacaatctc cctgaggata tggggcgact
1681 tcacctggat gatggaaaat cgcccaacca tggtagata gccaaagggtg gagaaaggca
1741 gtatcgagag gactttcaga tggatgaagg agaggatcct agcttcctgt tccagtcata
1801 cctggaaaat gttggagtcc aaatagtcag acaaatgagg tcaggagaga gatttctcaa
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Fig. 9D-2

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1861 gatatggtca cagaccgtag aagagattat atcctatgtc gcggtcaact ttcccaaccc
1921 tccaggaaag tcttcagagg ataaatcaac ccagactact ggccgagagc tcaagaagga
1981 gacaacaccc actccttctc agagagaaag ccaatcatcg aaagccagga tggcggctca
2041 aattgcttct ggccctccag cccttgaatg gtcggctacc aatgaagagg atgatctatc
2101 agtggaggct gagatcgctc accagattgc agaaagtttc tccaaaaaat ataagtttcc
2161 ctctcgatcc tcagggatac tcttgtataa ttttgagcaa ttgaaaatga accttgatga
2221 tatagttaaa gaggcacaaa atgtaccagg tgtgaccctg ttagcccatg acgggtccaa
2281 actcccccta agatgtgtac tgggatgggt cgctttggcc aactctaaga aattccagtt
2341 gttagtcgaa tccgacaagc tgagtaaaat catgcaagat gacttgaatc gctatacatc
2401 ttgctaaccg aacctctccc ctcatgccct ctagacaata aaatccgaga tgtcccaaag
2461 tcaacatgaa aaaaacaggc aacaccactg ataaaatgaa cctcctacgt aagatagtga
2521 aaaaccgcag ggacgaggac actcaaaaat cctctcccgc gtcagcccct ctggatgacg
2581 atgacttgtg gcttccaccc cctgaatacg tcccgtgaa agaacttaca ggcaagaaga
2641 acatgaggaa cttttgtatc aacggaaggg ttaaagtgtg tagcccgaat ggttactcgt
2701 tcaggatcct gcggcacatt ctgaaatcat tcgacgagat atattctggg aatcatagga
2761 tgatcggggt agtcaaagtg gttattggac tggctttgtc aggatctcca gtccctgagg
2821 gcctgaactg ggtatacaaa ttgaggagaa cctttatctt ccagtgggct gattccaggg
2881 gccctcttga aggggaggag ttggaatact ctcaggagat cacttgggat gatgatactg
2941 agttcgtcgg attgcaaata agagtgattg caaaacagtg tcatatccag ggcagagtct
3001 ggtgtatcaa catgaacccg agagcatgtc aactatgggtc tgacatgtct cttcagacac
3061 aaaggtccga agaggacaaa gattcctctc tgcttctaga ataatcagat tatatcccgc
3121 aaatttatca cttgtttacc tctggaggag agaacatatg ggctcaactc caacccttgg
3181 gagcaatata acaaaaaaca tgttatgggt ccattaaacc gctgcatttc atcaaagtca
3241 agttgattac ctttacattt tgatcctctt ggatgtgaaa aaaactatta acatccctca
3301 aaagactcaa ggaaagatgg ttcctcaggc tctcctgttt gtacccttc tggtttttcc
3361 attgtgtttt gggaaattcc ctatttacac gataccagac aagcttgggtc cctggagtcc
3421 gattgacata catcacctca gctgccc aaa caatttggtg gtggaggacg aaggatgcac
3481 caacctgtca gggttctcct acatggaact taaagtggga tacatcttag ccataaaagt
3541 gaacgggttc acttgcacag gcgttgtgac ggaggctgaa acctacacta acttcgttgg
3601 ttatgtcaca accacgttca aaagaaagca tttccgcca acaccagatg catgtagagc
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Fig. 9D-3

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3661 cgcgtacaac tggaagatgg ccggtgaccc cagatatgaa gagtctctac acaatccgta
3721 ccctgactac cgctggcttc gaactgtaaa aaccaccaag gagtctctcg ttatcatatc
3781 tccaagtgtg gcagatttgg acccatatga cagatccctt cactcgaggg tcttccctag
3841 cgggaagtgc tcaggagtag cgggtgtcttc tacctactgc tccactaacc acgattacac
3901 catttgatg cccgagaatc cgagactagg gatgtcttgt gacattttta ccaatagtag
3961 agggaagaga gcatccaaag ggagtgagac ttgcggcttt gtagatgaaa gaggcctata
4021 taagtcttta aaaggagcat gcaaactcaa gttatgtgga gttctaggac ttagacttat
4081 ggatggaaca tgggtctcga tgcaaacatc aaatgaaacc aaatgggtgcc ctcccgataa
4141 gttgggtgaac ctgcacgact ttcgctcaga cgaaattgag caccttggtg tagaggagtt
4201 ggtcaggaag agagaggagt gtctggatgc actagagtcc atcatgacaa ccaagtcagt
4261 gagtttcaga cgtctcagtc atttaagaaa acttgtccct gggtttggaa aagcatatac
4321 catattcaac aagaccttga tggaagccga tgctcactac aagtcagtcG AAacttggaa
4381 tgagatcctc cttcaaaaag ggtgtttaag agttgggggg aggtgtcatc ctcatgtgaa
4441 cggggtgttt ttcaatggta taatattagg acctgacggc aatgtcttaa tcccagagat
4501 gcaatcatcc ctccctccagc aacatatgga gttgttggaa tcctcggtta tcccccttgt
4561 gcacccccctg gcagaccctg ctaccgtttt caaggacggt gacgaggctg aggattttgt
4621 tgaagttcac cttcccgatg tgcacaatca ggtctcagga gttgacttgg gtctcccgaa
4681 ctgggggaag tatgtattac tgagtgcagg ggccctgact gccttgatgt tgataatttt
4741 cctgatgaca tgttgtagaa gagtcaatcg atcagaacct acgcaacaca atctcagagg
4801 gacagggagg gaggtgtcag tcaactccca aagcgggaag atcatatctt catgggaatc
4861 acacaagagt gggggtgaga ccagactgta aggactggcc gtcctttcaa cgatccaagt
4921 cctgaagatc acctcccctt ggggggttct ttttgaaaaa cctgggttca atagtcctcc
4981 ttgaactcca tgcaactggg tagattcaag agtcatgaga ttttcattaa tcctctcagt
5041 tgatcaagca agatcatgtc gattctcata ataggggaga tcttctagca gtttcagtga
5101 ctaacggtac tttcattctc caggaactga caccaacagt tgtagacaaa ccacggggtg
5161 tctcgggtga ctctgtgctt gggcacagac aaaggatcatg gtgtgttcca tgatagcgga
5221 ctcaggatga gttaattgag agaggcagtc ttcctcccgt gaaggacata agcagtagct
5281 cacaatcatc tcgcgtctca gcaaagtgtg cataattata aagtgtctgg tcatctaagc
5341 ttttcagtcg agaaaaaac attagatcag aagaacaact ggcaaacact ctcaacctga
5401 gacttacttc aagatgctcg atcctggaga ggtctatgat gaccctattg acccaatcga
5461 gttagaggct gaaccagag gaaccccat tgtcccaac atcttgagga actctgacta
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Fig. 9D-4

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5521 caatctcaac tctcctttga tagaagatcc tgctagacta atgttagaat gggttaaaaac
5581 agggaataga ccttatcgga tgactctaac agacaattgc tccaggtctt tcagagtttt
5641 gaaagattat ttcaagaagg tagatttggg ttctctcaag gtgggcgga tggctgcaca
5701 gtcaatgatt tctctctggt tatatggtgc ccactctgaa tccaacagga gccggagatg
5761 tataacagac ttggcccat tctattccaa gtcgtcccc atagagaagc tgttgaatct
5821 cacgctagga aatagagggc tgagaatccc cccagaggga gtgttaagtt gccttgagag
5881 ggttgattat gataatgcat ttggaaggta tcttgccaac acgtattcct cttacttggt
5941 cttccatgta atcaccttat acatgaacgc cctagactgg gatgaagaaa agaccatcct
6001 agcattatgg aaagatttaa cctcagtggg catcggaag gacttggtta agttcaaaga
6061 ccaaatatgg ggactgctga tcgtgacaaa ggactttgtt tactcccaaa gttccaattg
6121 tctttttgac agaaactaca cacttatgct aaaagatctt ttcttgtctc gcttcaactc
6181 cttaatggtc ttgctctctc ccccagagcc ccgataactca gatgacttga tatctcaact
6241 atgccagctg tacattgctg gggatcaagt cttgtctatg tgtggaaact ccggtatga
6301 agtcatcaaa atattggagc catatgtcgt gaatagttta gtccagagag cagaaaagtt
6361 taggcctctc attcattcct tgggagactt tcctgtattt ataaaagaca aggtaagtca
6421 acttgaagag acgttcggtc cctgtgcaag aaggttcttt agggctctgg atcaattcga
6481 caacatacat gacttggttt ttgtgtttgg ctgttacagg cattgggggc acccatatat
6541 agattatcga aagggtctgt caaaactata tgatcagggt caccttaaaa aaatgataga
6601 taagtcctac caggagtgt tagcaagcga cctagccagg aggatcctta gatggggttt
6661 tgataagtac tccaagtggg atctggattc aagattccta gcccagagacc accccttgac
6721 tccttatatc aaaacccaaa catggccacc caaacatatt gtagacttgg tgggggatac
6781 atggcacaag ctcccgatca cgcagatctt tgagattcct gaatcaatgg atccgtcaga
6841 aatattggat gacaaatcac attctttcac cagaacgaga ctagcttctt ggctgtcaga
6901 aaaccgaggg gggcctgttc ctagcgaaaa agttattatc acggccctgt ctaagccgcc
6961 tgtcaatccc cgagagtttc tgagggtctat agacctcgga ggattgccag atgaagactt
7021 gataattggc ctcaagccaa aggaacggga attgaagatt gaaggtcgat tctttgctct
7081 aatgtcatgg aatctaagat tgtattttgt catcactgaa aaactcttgg ccaactacat
7141 cttgccactt ttgacgcgc tgactatgac agacaacctg aacaagggtg ttaaaaagct
7201 gatcgacagg gtcaccgggc aagggtcttt ggactattca agggtcacat atgcatttca
7261 cctggactat gaaaagtgga acaaccatca aagattagag tcaacagagg atgtattttc
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Fig. 9D-5

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7321 tgtcctagat caagtgtttg gattgaagag agtgttttct agaacacacg agttttttca
7381 aaaggcctgg atctattatt cagacagatc agacctcatc gggttacggg aggatcaaat
7441 atactgctta gatgcgtcca acggcccaac ctgttgggaat ggccaggatg gcgggctaga
7501 aggcttacgg cagaagggct ggagtctagt cagcttattg atgatagata gagaatctca
7561 aatcaggaac acaagaacca aaatactagc tcaaggagac aaccagggtt tatgtccgac
7621 atacatgttg tcgccagggc tatctcaaga ggggctcctc tatgaattgg agagaatatc
7681 aaggaatgca ctttcgatat acagagccgt cgaggaaggg gcatctaagc tagggctgat
7741 catcaagaaa gaagagacca tgtgtagtta tgacttcctc atctatggaa aaaccctttt
7801 gttagaggt aacatattgg tgcctgagtc caaaagatgg gccagagtct cttgcgtctc
7861 taatgaccaa atagtcaacc tcgccaatat aatgtcgaca gtgtccacca atgcgctaac
7921 agtggcacia cactctcaat ctttgatcaa accgatgagg gattttctgc tcatgtcagt
7981 acaggcagtc tttcactacc tgctatttag cccaatctta aagggaagag tttaacaagat
8041 tctgagcgct gaaggggaga gctttctcct agccatgtca aggataatct atctagatcc
8101 ttctttggga gggatatctg gaatgtccct cggaagattc catatacgac agttctcaga
8161 ccctgtctct gaagggttat ctttctggag agagatctgg ttaagctccc aagagtcctg
8221 gattcacgcg ttgtgtcaag aggctggaaa cccagatctt ggagagagaa cactcgagag
8281 cttcactcgc cttctagaag atccgaccac cttaaataatc agaggagggg ccagtcctac
8341 cattctactc aaggatgcaa tcagaaaggc tttatatgac gaggtggaca aggtggaaaa
8401 ttcagagttt cgagaggcaa tcctgttgtc caagacccat agagataatt ttatactctt
8461 cttaatatct gttgagcctc tgtttcctcg atttctcagt gagctattca gttcgtcttt
8521 tttgggaatc cccgagtcaa tcattggatt gatacaaaac tcccgaacga taagaaggca
8581 gttagaaaag agtctctcaa aaactttaga agaatccttc tacaactcag agatccacgg
8641 gattagtcgg atgaccaga cacctcagag gggtgggggg gtgtggcctt gctcttcaga
8701 gagggcagat ctacttaggg agatctcttg gggaagaaaa gtggtaggca cgacagttcc
8761 tcacccttct gagatgttgg gattacttcc caagtcctct atttcttgca cttgtggagc
8821 aacaggagga ggcaatccta gagtttctgt atcagtactc ccgtcctttg atcagtcatt
8881 tttttcacga ggccccctaa agggatactt gggctcgtcc acctctatgt cgaccagct
8941 attccatgca tgggaaaaag tcactaatgt tcatgtggtg aagagagctc tatcgtaaaa
9001 agaatctata aactggttca ttactagaga ttccaacttg gctcaagctc taattaggaa
9061 cattatgtct ctgacaggcc ctgatttccc tctagaggag gcccctgtct tcaaaaggac
```

Fig. 9D-6

9121	ggggtcagcc	ttgcataggt	tcaagtctgc	cagatacagc	gaaggagggt	attcttctgt
9181	ctgcccgaac	ctcctctctc	atatttctgt	tagtacagac	accatgtctg	atttgaccca
9241	agacgggaag	aactacgatt	tcatgttcca	gccattgatg	ctttatgcac	agacatggac
9301	atcagagctg	gtacagagag	acacaaggct	aagagactct	acgtttcatt	ggcacctccg
9361	atgcaacagg	tgtgtgagac	ccattgacga	cgtgaccctg	gagacctctc	agatcttcga
9421	gtttccggat	gtgtcgaaaa	gaatatccag	aatggtttct	ggggctgtgc	ctcacttcca
9481	gaggcttccc	gatatccgtc	tgagaccagg	agattttgaa	tctctaagcg	gtagagaaaa
9541	gtctcaccat	atcggatcag	ctcaggggct	cttatactca	atcttagtgg	caattcacga
9601	ctcaggatac	aatgatggaa	ccatcttccc	tgtcaacata	tacggcaagg	tttcccctag
9661	agactatttg	agagggtctg	caaggggagt	attgatagga	tcctcgattt	gcttcttgac
9721	aagaatgaca	aatatcaata	ttaatagacc	tcttgaattg	gtctcagggg	taatctcata
9781	tattctcctg	aggctagata	accatccctc	cttgtacata	atgctcagag	aaccgtctct
9841	tagaggagag	atattttcta	tccctcagaa	aatccccgcc	gcttatccaa	ccactatgaa
9901	agaaggcaac	agatcaatct	tgtgttatct	ccaacatgtg	ctacgctatg	agcgagagat
9961	aatcacggcg	tctccagaga	atgactggct	atggatcttt	tcagacttta	gaagtgccaa
10021	aatgacgtac	ctatccctca	ttacttacca	gtctcatctt	ctactccaga	gggttgagag
10081	aaacctatct	aagagtatga	gagataacct	gcgacaattg	agttctttga	tgaggcaggt
10141	gctgggcggg	cacggagaag	ataccttaga	gtcagacgac	aacattcaac	gactgctaaa
10201	agactcttta	cgaaggacaa	gatgggtgga	tcaagagggt	cgccatgcag	ctagaaccat
10261	gactggagat	tacagcccca	acaagaagg	gtcccgtgta	gtaggatgtt	cagaatgggt
10321	ctgctctgct	caacagggtg	cagtctctac	ctcagcaaac	ccggcccctg	tctcggagct
10381	tgacataagg	gccctctcta	agaggttcca	gaaccctttg	atctcgggct	tgagagtgg
10441	tcagtgggca	accggtgctc	attataagct	taagcctatt	ctagatgata	tcaatgtttt
10501	cccattctct	tgccttgtag	ttggggacgg	gtcagggggg	atatcaagg	cagtcctcaa
10561	catgtttcca	gatgccaaag	ttgtgttcaa	cagtctttta	gaggtgaatg	acctgatggc
10621	ttccggaaca	catccactgc	ctccttcagc	aatcatgagg	ggaggaaatg	atatcgtctc
10681	cagagtgata	gatcttgact	caatctggga	aaaaccgtcc	gacttgagaa	acttggaac
10741	ctggaaatac	ttccagtcag	tccaaaagca	ggtcaacatg	tcctatgacc	tcattatttg
10801	cgatgcagaa	gttactgaca	ttgcatctat	caaccggatc	accctgttaa	tgtccgattt
10861	tgcattgtct	atagatggac	cactctattt	ggtcttcaaa	acttatggga	ctatgctagt

Fig. 9D-7

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10921 aaatccaaac tacaaggcta ttcaacacct gtcaagagcg ttcccctcgg tcacagggtt
10981 tatcacccaa gtaacttcgt ctttttcatc tgagctctac ctccgattct ccaaacgagg
11041 gaagtttttc agagatgctg agtacttgac ctcttccacc cttcgagaaa tgagccttgt
11101 gttattcaat tgtagcagcc ccaagagtga gatgcagaga gctcgttcct tgaactatca
11161 ggatcttgatg agaggatttc ctgaagaaat catatcaaata cttacaatg agatgatcat
11221 aactctgatt gacagtgatg tagaatcttt tctagtccac aagatgggtg atgatcttga
11281 gttacagagg ggaactctgt cttaaagtggc tatcattata gccatcatga tagttttctc
11341 caacagagtc ttcaacgttt ccaaaccctt aactgacccc tcgttctatc caccgtctga
11401 tcccaaaatc ctgaggcact tcaacatatg ttgcagtact atgatgtatc tatctactgc
11461 tttaggtgac gtccctagct tcgcaagact tcacgacctg tataacagac ctataactta
11521 ttacttcaga aagcaagtca ttcgagggaa cgttttatcta tcttggagtt ggtccaacga
11581 cacctcagtg ttcaaaaggg tagcctgtaa ttctagcctg agtctgtcat ctcactggat
11641 caggttgatt tacaagatag tgaagactac cagactcgtt ggcagcatca aggatctatc
11701 cagagaagtg gaaagacacc ttcataaggta caacaggtgg atcaccttag aggatatcag
11761 atctagatca tccctactag actacagttg cctgtgaacc ggatactcct ggaagcctgc
11821 ccatgctaag actcttgtgt gatgtatctt gaaaaaaca agatcctaaa tctgaacctt
11881 tgggtgtttg attgtttttc tcatttttgt tgtttatttg ttaagcgt
```

Fig. 10A

Rabies virus G amino acid sequence (wt, Arginine 333 underlined):

MVPQALLFVPLLVFPLCFGKFPIYTIPDKLGPWSPIDIHHLSCPNNLVVEDEGCTNLSGFSY
MELKVGYILAIKVNGFTCTGVVTEAETYTNFVG YVTTTFKRKHFRPTPDACRAAYNWMAGDP
RYEESLHNPYPDYRWLRTVKT^TKE^SLVIIISPSVADLDPYDRSLHSRVFPSGKCSGVAVSSTY
CSTNH^DYTIWMPENPRLGMSCDIFTNSRGKRASKGSETCGFVDERGLYKSLKGACKLKLCGV
LGLRLMDGTWVSMQTSNETKWCPPDKLVNLHDFRSDEIEHLVVEELVRKREECLDALESIMT
TKSVSFRRLSHLRKLVPFGFKAYTIFNKTLMEADAHYKSVRTWNEILPSKGCLRVGGRCHPH
VNGVFFNGIILGPDGNVLIPEMQSSLLQQHMELLE^SSVIPLVHPLADPSTVFKDGD^EAEDFV
EVHLPDVHNQVSGVDLGLPNWGKYVLLSAGALTALMLIIFLMTCCRRVNRSEPTQHNLRG^TG
REVSVTPQSGKIISSWESHKSGGETRL

Fig. 10B

Rabies virus G amino acid sequence (wt, Arginine 333 mutated to Glutamic acid,
underlined):

MVPQALLFVPLLVFPLCFGKFPIYTIPDKLGPWSPIDIHHLSCPNNLVVEDEGCTNLSGFSY
MELKVGYILAIKVNGFTCTGVVTEAETYTNFVG YVTTTFKRKHFRPTPDACRAAYNWMAGDP
RYEESLHNPYPDYRWLRTVKT^TKE^SLVIIISPSVADLDPYDRSLHSRVFPSGKCSGVAVSSTY
CSTNH^DYTIWMPENPRLGMSCDIFTNSRGKRASKGSETCGFVDERGLYKSLKGACKLKLCGV
LGLRLMDGTWVSMQTSNETKWCPPDKLVNLHDFRSDEIEHLVVEELVRKREECLDALESIMT
TKSVSFRRLSHLRKLVPFGFKAYTIFNKTLMEADAHYKSVETWNEILPSKGCLRVGGRCHPH
VNGVFFNGIILGPDGNVLIPEMQSSLLQQHMELLE^SSVIPLVHPLADPSTVFKDGD^EAEDFV
EVHLPDVHNQVSGVDLGLPNWGKYVLLSAGALTALMLIIFLMTCCRRVNRSEPTQHNLRG^TG
REVSVTPQSGKIISSWESHKSGGETRL

Fig. 11A

Rabies virus N amino acid sequence (wt, phosphorylated serine underlined):

MDADKIVFKVNNQVVSLKPEIIVDQYEEKYPAIKDLKKPCITLGKAPDLNKAYKSVLSGMSAA
KLNPDVCSYLAAAMQFFEGTCDWTSYGIVIAARKGDKITPGSLVEIKRTDVEGNWALTGGM
ELTRDPTVPEHASLVGLLLSLYRLSKISGQNTGNYKTNIADRIEQIFETAPFVKIVEHHTLMT
THKMCANWSTIPNFRFLAGTYDMFFSRIEHLYSAIRVGT VVTAYEDCSGLVSFTGFIKQINLT
AREAILYFFHKNFEEEEIRRMFEPGQETAVPHSYFIHFRSLGLSGKSPYSSNAVGHVFNLIHFV
GCYMGQVRSLNATVIAACAPHEMSVLGGYLGEFFFGKGTERRFFRDEKELQEYEAELTKTD
VALADDGTVNDDEDYFSGETRSPEAVYTRIMMNGGRLKRSHIRRYVSVSSNHQARPNSFAEF
LNKTYSSDS

Fig. 11B

Rabies virus N amino acid sequence (Serine to Alanine, see underlined):

MDADKIVFKVNNQVVSLKPEIIVDQYEEKYPAIKDLKKPCITLGKAPDLNKAYKSVLSGMSAA
KLNPDVCSYLAAAMQFFEGTCDWTSYGIVIAARKGDKITPGSLVEIKRTDVEGNWALTGGM
ELTRDPTVPEHASLVGLLLSLYRLSKISGQNTGNYKTNIADRIEQIFETAPFVKIVEHHTLMT
THKMCANWSTIPNFRFLAGTYDMFFSRIEHLYSAIRVGT VVTAYEDCSGLVSFTGFIKQINLT
AREAILYFFHKNFEEEEIRRMFEPGQETAVPHSYFIHFRSLGLSGKSPYSSNAVGHVFNLIHFV
GCYMGQVRSLNATVIAACAPHEMSVLGGYLGEFFFGKGTERRFFRDEKELQEYEAELTKTD
VALADDGTVNADDEDYFSGETRSPEAVYTRIMMNGGRLKRSHIRRYVSVSSNHQARPNSFAEF
LNKTYSSDS

Fig. 11C

Rabies virus N amino acid sequence (Serine to Glycine, see underlined):

MDADKIVFKVNNQVVSLKPEIIVDQY EYKYPAIKDLKKPCITLGKAPDLNKAYKSVLSGMSAA
KLNPDVCSYLAAMQFFEGTCPEDWTSYGIVIAARKGDKITPGSLVEIKRTDVEGNWALTGGM
ELTRDPTVPEHASLVGLLLSLYRLSKI SGQNTGNYKTNIADRIEQIFETAPFVKIVEHHTLMT
THKMCANWSTIPNFRFLAGTYDMFFSRIEHLYSAIRVGT VVTAYEDCSGLVSFTGFIKQINLT
AREAILYFFHKNFEEEEIRRMFEPGQETAVPHSYFIHFRSLGLSGKSPYSSNAVGHVFNLIHFV
GCYMGQVRSLNATVIAACAPHEMSVLGGYLGE EFGKGT FERRFFRDEKELQEY EAAELTKTD
VALADDGTVNQDDDEDYFSGETRSP EAVYTRIMMNGGRLKRSHIRRYVSVSSNHQARPNSFAEF
LNKTYSSDS

Fig. 11D

Rabies virus N amino acid sequence (Serine to Glutamine, see underlined):

MDADKIVFKVNNQVVSLKPEIIVDQY EYKYPAIKDLKKPCITLGKAPDLNKAYKSVLSGMSAA
KLNPDVCSYLAAMQFFEGTCPEDWTSYGIVIAARKGDKITPGSLVEIKRTDVEGNWALTGGM
ELTRDPTVPEHASLVGLLLSLYRLSKI SGQNTGNYKTNIADRIEQIFETAPFVKIVEHHTLMT
THKMCANWSTIPNFRFLAGTYDMFFSRIEHLYSAIRVGT VVTAYEDCSGLVSFTGFIKQINLT
AREAILYFFHKNFEEEEIRRMFEPGQETAVPHSYFIHFRSLGLSGKSPYSSNAVGHVFNLIHFV
GCYMGQVRSLNATVIAACAPHEMSVLGGYLGE EFGKGT FERRFFRDEKELQEY EAAELTKTD
VALADDGTVNQDDDEDYFSGETRSP EAVYTRIMMNGGRLKRSHIRRYVSVSSNHQARPNSFAEF
LNKTYSSDS